**Southern California Association of Marine Invertebrate Taxonomists**

3720 Stephen White Drive
San Pedro, California 90731

June, 1993 Vol. 12, No. 2

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| **NEXT MEETING:** | Sabellidae |
| **GUEST SPEAKER:** | Dr. Kirk Fitzhugh of the Los Angeles County Museum of Natural History, Los Angeles, CA |
| **DATE:** | July 19, 1993 |
| **TIME:** | 9:30am-3:00pm |
| **LOCATION:** | New Polychaete Lab at Los Angeles County Museum of Natural History Los Angeles, CA (enter at staff entrance as usual) |

Figure from Polychaetes of the Northern Gulf of Mexico Vol.VII by Barry A. Vittor and Associates, Inc.

## JULY 19 MEETING

The July 19 meeting will cover Sabellidae Polychaeta. Dr. Kirk Fitzhugh will emphasize the Subfamily Sabellinae (*Demonax, Sabella, Megalomma, Pseudopotamilla* etc). It will be held at the Los Angeles County Museum of Natural History. Please begin organizing specimens now and send them to Kirk prior (preferably) or bring them to the meeting.

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## MINUTES FROM MEETING ON JUNE 21

Ron Velarde announced that the 74th Annual Meeting of the Western Society of Naturalists in conjunction with the American Society of Zoologists (ASZ) will be held December 26-30, 1993 at the Hilton and Hyatt Regency in Los Angeles, California.

Larry Lovell stated that SCAMIT should think about organizing a volume for a future Southern California Academy of Sciences (SCAS) bulletin containing Southern California fauna. If anyone is interested or has any ideas please contact Larry at:

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Dr. Jim Blake started the morning by discussing the MMS Taxonomic Atlas of the Benthic Macrofauna of the Santa Maria Basin and Western Santa Barbara Channel. Included in the newsletter is the outline of the 14 volumes and the authors for each section. The first volume is scheduled to be released in three to four weeks. Paul Scott of the Santa Barbara Museum of Natural History will have an announcement in a future newsletter about subscribing to the atlas.

Dr. Blake announced to the group about the passing away of Ralph Smith (U. C. Berkeley). He also stated that the 4th edition of Light's and Smith's Manual by Jim Carlton is being planned and information in the manual will be expanded to cover the California/Oregon border to Point Conception.

Dr. Brigitte Hilbig then discussed Dorvilleidae. She presented illustrations of 5 species that will appear in the MMS Atlas. The five species are *Dorvillea* (*Schistomeringos*) *longicornis* (Ehlers, 1901), *Parougia batia* (Jumars,1974),*Dorvillea* (*Schistomeringos*) *annulata* (Moore, 1906), *Parophryotrocha* n. sp. and *Pettiboneia brevipalpa* Hilbig and Ruff, 1990. Included in this newsletter is a copy of her Dorvilleidae key. In her key, the Genera marked with an asterisk are not included in the Atlas. The species *Parougia caeca* (Webster and Benedict) marked with an asterisk means that it should show up in So. California, but she did not find it in the Santa Maria Basin. Brigitte also stated that the presence/absence of furcate setae is a variable character and shouldn't be relied upon. Instead she said the jaws should be used for identification. The larger specimens can be opened dorsally and the smaller specimens can be cleared in 10% KOH for an hour or two (check every 20 minutes).

In the afternoon Dr. Blake reviewed Cirratulidae. The first Genus discussed was *Chaetozone*. *Chaetozone armata* Hartman, 1963 and C. *corona* Berkeley and Berkeley, 1941 are valid species. *Chaetozone gracilis* (Moore, 1923) and C. *spinosa* Moore,1903 are both valid, but occur at depths of 2,000 m or greater. As noted, C. *multioculata* Hartman,1961 is actually *Cirratulus cirratus* (Muller, 1776). C.. cf *setosa* Malmgren, 1867 as reported in California appears to be a complex of species and still needs to be discerned. The common specimens in the Santa Maria Basin are a new species. The Genus *Caulleriella* was then discussed. The type material of *Caulleriella gracilis* was reviewed by Blake and further information will be forthcoming. C. *hamata* as reported by Hartman, 1969 is valid but probably does not occur in California. The California specimens represent a new species. The next Genus discussed was *Monticellina* (denticulate setae). The species Blake presented were

*Monticellina tesselata* (Hartman, 1960), *M.* n. sp. (Blake), *M. dorsobranchialis* (Kirkegaard, 1959), and a new species of Tony Phillip's *M.* sp B (Hyperion). Another Genus discussed was *Aphelochaeta* (smooth setae). The species described were *Aphelochaeta monilaris* (Hartman, 1960), *A. marioni* (Saint-Joseph, 1894), and two descriptions of *A. multifilis.* (Moore, 1909). He is also preparing two new species of *Tharyx*. One occurs in deep water near San Francisco and the other is an introduced species occuring in San Francisco Bay.

## FUTURE MEETINGS

The August 9, 1993 meeting will be the final SCAMIT meeting concerning the master species list of the southern California benthos and will include continued discussion on the addition of the smaller dischargers. It will be at the Cabrillo Marine Museum, San Pedro, CA.

The meeting in September will be on Anthurid Isopods with Dr. Rick Brusca of the San Diego Natural History Museum and Don Cadien of the Los Angeles County Sanitation Districts. It will be held at the San Diego Natural History Museum, San Diego, CA.

**SCAMIT OFFICERS:**
If you need any other information concerning SCAMIT please feel free to contact any of the officers.

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TAXONOMIC ATLAS OF THE BENTHIC MACROFAUNA OF THE SANTA MARIA BASIN AND WESTERN SANTA BARBARA CHANNEL

Volume 1: Introduction, Benthic Ecology, Oceanography, Platyhelminthes, and Nemertea

Introduction to the Taxonomic Atlas - Blake
Physical Description of the Santa Maria Basin and Western Santa Barbara Channel - Blake and Lissner
Benthic Soft-substrate Community Ecology of the Santa Maria Basin and Western Santa Barbara Channel - Blake
Benthic Hard-substrate Community Ecology of the Santa Maria Basin and Western Santa Barbara Channel - Lissner and Benech
Platyhelminthes - Hilbig and Blake
Nemertea - Blake

Volume 2: Porifera (Green and Bakus) (done)

Volume 3: Cnidaria
Anemones - Fautin (done)
Hydroids (Hochberg)
Corals (Hochberg)

Volume 4: Annelida Part 1 (volume completed)

Introduction to the Annelida (Blake and Erséus) (done)
Oligochaeta (Erséus) (done)
Introduction to the Polychaeta (Blake) (done)
Polychaeta:
Order Phyllodocida
Family Phyllodocidae (Blake) (done)
Family Lacydoniidae (Blake) (added family, done)
Family Glyceridae (Hilbig) (done)
Family Goniadidae (Hilbig) (done)
Family Sphaerodoridae (Kudenov) (done)
Family Hesionidae (Hilbig) (done)
Family Pilargidae (Blake) (done)
Family Nautiliniellidae (Blake) (added family, done)
Family Nephtyidae (Hilbig) (done)
Family Paralacydoniidae (Blake) (added family, done)
Family Nereididae (Hilbig) (done)

Volume 5: Annelida Part 2

- Order Phyllodocida (Continued)
  - Family Syllidae (Kudenov and Harris)
  - Family Aphroditidae (Blake) (done)
  - Family Polynoidae (Ruff)
  - Family Acoetidae (Blake) (done)
  - Family Pholoidae (Blake) (done)
  - Family Sigalionidae (Hilbig)
  - Family Chrysopetalidae (not represented)
- Order Amphinomida
  - Family Amphinomidae (Kudenov) (done)
  - Family Euphrosinidae (Kudenov) (done)
- Order Eunicida
  - Family Onuphidae (Hilbig)
  - Family Eunicidae (Hilbig) (done)
  - Family Lumbrineridae (Hilbig) (done)
  - Family Arabellidae (Hilbig) (done)
  - Family Dorvilleidae (Hilbig) (done)

Volume 6: Annelida Part 3

- Order Orbiniida
  - Family Orbiniidae (Blake) (done)
- Order Spionida
  - Family Apistobranchidae (Blake) (done)
  - Family Spionidae (Maciolek, Blake)
  - Family Trochochaetidae (not represented)
  - Family Poecilochaetidae (Blake)
- Order Chaetopterida
  - Family Chaetopteridae (Blake)
- Order Magelonida
  - Family Magelonidae (Blake)
- Order Cirratulida
  - Family Paraonidae (Blake)
  - Family Questidae (not represented)
  - Family Cirratulidae (Blake)
  - Family Ctenodrilidae (Blake)
- Order Cossurida
  - Family Cossuridae (Blake, Hilbig)
- Order Flabelligerida
  - Family Flabelligeridae (Light)
  - Family Acrocirridae (Light)
  - Family Fauveliopsidae (Hilbig)
- Order Opheliida
  - Family Opheliidae (Blake)
  - Family Scalibregmatidae (Blake)
- Order Sternaspida
  - Family Sternaspidae (Blake)

Volume 7: Annelida Part 4

- Order Capitellida
  - Family Capitellidae (Ruff)
  - Family Maldanidae (Light)
- Order Oweniida
  - Family Oweniidae (Blake)
- Order Terebellida
  - Family Pectinariidae (Blake)
  - Family Sabellariidae (Blake)
  - Family Ampharetidae (Hilbig)
  - Family Trichobranchidae (Hilbig)
  - Family Terebellidae (Hilbig)
- Order Sabellida
  - Family Sabellidae (Ruff)
  - Family Serpulidae (Ruff)

Volumes 8: Mollusca Part 1

- Gastropoda
  - Opisthobranchiata (Gosliner) (November)
  - Prosobranchiata (McLean) (August)

Volume 9: Mollusca Part 2

- Aplacophora (Scheltema) (September)
- Polyplacophora (Eernisse) (done, August)
- Bivalvia (Scott) (done)
- Scaphopoda (Shimek) (done)
- Cephalopoda (Hochberg) (done)

Volume 10: Arthropoda Part 1

- Introduction (Watling)
- Pycnogonida (Cadien, Dojiri)
- Crustacea
  - Cirripedia (Watling)
  - Decapoda (Martin)
    - Mysidacea (Williams)
    - Euphausiacea (Watling)

Volume 11: Arthropoda Part 2

- Peracarida
  - Cumacea (Watling)
  - Tanaidacea (Sieg, Dojiri)
  - Isopoda (Wilson, Brusca) (done)

Volume 12: Arthropoda Part 3
- Peracarida: Amphipoda (Conlan, Thomas, Watling)
  - Introduction (Watling)
    - Amphipod Morphology
    - Laboratory Methods
    - List of Abbreviations
    - Glossary
    - Key to the Suborders and Families
  - Suborder Gammaridea
    - Families Ampeliscidae to Urothoidae
  - Suborder Caprellidea

Volume 13: Bryozoa (Soule et al) (September)

Volume 14: Lesser Coelomata, Tunicata, Echinodermata
- Sipuncula (Winchell) (done)
- Echiura (Pilger) (done)
- Brachiopoda (Hochberg) (done)
- Phoronida (Hochberg)
- Echinodermata
  - Asteroidea (Lissner)
  - Ophiuroidea (Hendler)
  - Echinoidea (Lissner)
  - Holothuroidea (Bergen) (done)
- Hemichordata (Woodwick) (done)
- Urochordata (Lambert) (done)

## 12.5 Key to the Dorvilleidae

1A. Notopodia (= "dorsal cirri" with embedded acicula) present in at least some setigers . . . . 2

1B. Notopodia absent; dorsal cirri if present short, never with acicula . . . . . 10

2A. Notopodia present throughout body (may be absent on setiger 1); antennae and palps well developed, antennae moniliform, palps biarticulate; maxillae in four rows, with or without maxillary carriers, with at least one pair of basal plates (Fig. xx) . . . . . 3

2B. Notopodia with aciculae present on limited number of anterior setigers; antennae and palps well developed or reduced; maxillae in two, four, or numerous rows, consisting of free denticles only . . . . . 8

3A. Maxillae with maxillary carriers and both superior and inferior basal plates; furcate setae if present with short tines (Fig. xx): genus *Dorvillea* . . . . . 6

3B. Maxillae without inferior basal plates; furcate setae if present with long, slender tines (Fig. xx) . . . . . 4

4A. Maxillary carriers present . . . . . genus *Ougia**

4B. Maxillary carriers absent: genus *Parougia* . . . . . 5

5A. Body large (more than 10 mm long), rigid; furcate setae usually present; all setae with serrations at least distally; maxillae heavily sclerotized, visible through body wall as V-shaped structure; mandibles triangular, dark . . . . . *Parougia caeca**

5B. Body small (about 5 mm long), fragile; furcate setae absent; all setae smooth and very slender; maxillae reduced, transparent, not visible through body wall; mandibles L-shaped with transparent center . . . . . *Parougia batia*

6A. Furcate setae absent (check several parapodia) . . . . . subgenus *Dorvillea**

6B. Furcate setae present: subgenus *Schistomeringos* . . . . . 7

7A. Dorsal cirri tapering, with cirrophores as long as cirrostyles; ventral cirri inserting subdistally; furcate setae with short tines half as long as long tines; anterior denticles with straight, finely serrated cutting edge . . . . . *Dorvillea (Schistomeringos) annulata*

7B. Dorsal cirri cylindrical, distally inflated, with cirrophores much longer than cirrostyles; ventral cirri inserting distally (may look like subdistal insertion when ventral setal lobe is extended); furcate setae with short tines one-thirs as long as long tines (setiger 10); most anterior denticles with crescentic, wing-like serrated cutting edge and some larger distal teeth . . . . . *Dorvillea (Schistomeringos) longicornis*

8A. Maxillae in 8 to 14 rows; most denticles covered with surficial spines; antennae simple, palps biarticulate, palpophores maximally as long as palpostyles: genus *Pettiboneia*.
Palps shorter than antennae, with very short palpophore; notopodia slightly longer than

neuropodia, present in setigers 2 to 12 . . . . . *Pettiboneia brevipalpa*

8B. Maxillae in 2 or 4 rows, none covered with surficial spines . . . . . 9

9A. Maxillae in 4 rows, maxillary carriers absent; antennae moniliform, palps biarticulate, palpophores much longer than palpostyles; anterior notopodia with aciculae, posterior ones without aciculae . . . . . genus *Diapharosoma**

9B. Maxillae in 2 rows, maxillary carriers present; antennae indistinctly articulate, palps biarticulate; palpophores about as long as palpostyles; notopodia present in limited number of anterior setigers . . . . . genus *Westheideia**

10A. Antennae and palps well developed, antennae moniliform; maxillae in 2 rows (Fig. xx); ventral cirri much longer than dorsal cirri . . . . . genus *Anchidorvillea**

10B. Antennae and palps well developed or reduced, antennae never moniliform; ventral cirri always shorter than dorsal cirri . . . . . 11

11A. Maxillae with superior and inferior free denticles and forceps or icetongs formed by fused carriers and basal plates (Fig. xx); prostomial appendages and parapodial cirri present or absent, well developed or reduced . . . . . 13

11B. Maxillae in 2 or 4 rows, without forceps or icetongs . . . . . 12

12A. Maxillae in 2 rows . . . . . 20

12B. Maxillae in 4 rows, with superior and inferior free denticles, superior and inferior basal plates, and maxillary carriers (some elements may be reduced); antennae and palps well developed or reduced . . . . . 15

13A. All setae simple: genus *Parophryotrocha*.
Prostomium wider than long, with well-developed clavate antennae and palps; median and posterior setigers with dorsolateral and ventrolateral segmental lobes; setae including smooth spines and fine capillaries . . . . . *Parophryotrocha brevicapitis* n.sp.

13B. Supraacicular setae simple, subacicular setae compound (ventralmost seta may be simple) 14

14A. Some or all setae in anterior setiger(s) greatly modified into recurved hooks genus *Exallopus**

14B. Anterior setae if modified only slightly different from regular setae, never recurved; prostomial appendages and parapodial cirri usually short and simple . . . . . genus *Ophryotrocha**

15A. Maxillae consisting of basal plates only; antennae and palps short, digitiformgenus *Eliberidens**

15B. Maxillae including free denticles . . . . . 16

16A. Minute interstitial forms, about 1 mm long, with maximally 15 setigers . . . . . 17

16B. Animals not interstitial, adults several millimeters long; antennae papilliform, palps

multiarticulate, much longer than antennae; maxillary apparatus well-developed . . . . . genus *Protodorvillea*

17A. Maxillae with superior and inferior basal plates and superior and inferior free denticles . . 18

17B. Maxillae with superior basal plates and superior and inferior free denticles; antennae simple, palps biarticulate, palpophores as long as palpostyles; all supraacicular setae simple spines . . . . . genus *Microdorvillea**

18A. Antennae moniliform, palps biarticulate, with long palpophore; supraacicular setae including furcate setae with long, slender tines . . . . . genus *Coralliotrocha**

18B. Antennae simple or absent; furcate setae absent . . . . . 19

19A. Setae including serrated capillaries and compound falcigers with serrated shaft and blade; prostomium with simple palps, antennae absent; parapodia without cirri; mandibles ornate; maxillae with at least two pairs of free denticles . . . . . genus *Petrocha**

19B. Both simple setae and blades of compound falcigers unidentate; capillaries serrated, compounds smooth; prostomium with simple palps, antennae absent; maximally 18 setigers, parapodia without cirri . . . . . genus *Pusillotrocha**

20A. Maxillae consisting of 3 pairs of smooth, elongate plates; furcate or geniculate setae absent . . . . . genus *Pseudophryotrocha**

20B. Maxillae consisting of serrated, rounded free denticles . . . . . 21

21A. Small, interstitial forms with reduced prostomial and parapodial appendages . . . . . 23

21B. Adults several millimeters long, not interstitial . . . . . 22

22A. Maxillary carriers absent; supraacicular setae including serrated capillaries, furcate setae with short tines (anterior setigers), and geniculate setae (median and posterior setigers); inferiormost subacicular seta cultriform; antennae and palps absent . . . . . genus *Gymnodorvillea**

22B. Maxillary carriers present; supraacicular setae including capillaries and furcate setae with short tines, occasionally replaced by geniculate seta in one or few anterior parapodia; antennae and palps present (palps may be absent) . . . . . genus *Melodorvillea**

23A. All setae compound; maximally 10 setigers, parapodia lacking cirri; prostomium with palps, antennae and eyes absent . . . . . genus *Ikostpodus**

23B. Supraacicular setae simple, serrated, bidentate; compound falcigers with smooth, distally bidentate blades; up to 10 setigers, parapodia without cirri; prostomium with digitiform antennae and thicker palps of equal length, eyes absent; nuchal organs with 4 ciliated pads . . . . . genus *Arenotrocha**